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Black or green Nuevo sol? An environmental and societal examination of petroleum extraction in Peru and whether the Ecuadorian Yasuni ITT Initiative provides a more holistic alternative

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This article examines the aforementioned Amazonian countries, their differing policy directions surrounding petroleum extraction and the impact this continues to have on the environment and the Indians of the Amazon Basin. It begins by analysing the international laws in place which should be safeguarding indigenous communities and is followed by a discussion on Peru, which reveals how successive Lima governments have ridden roughshod over the legitimate rights of the native population. This has culminated in the gravest risk yet; a 'mega concession' for extraction that covers over 10 million acres of rainforest and threatens numerous communities. The environmental and societal repercussions this would have will be highlighted through a study of the Achuar tribe in the Corrientes River Basin, who have suffered thirty years of oil extraction on their land. This is followed by a critique of Ecuador, a country that trod a similar policy path to Peru, but who is now taking a bold environmental approach to petroleum extraction through the Yasuni ITT Initiative. This enterprise will be explored alongside the possible motives behind it which will lead to a theoretical argument; that the scheme could provide Peru with a credible alternative to petroleum extraction which would not only safeguard the indigenous tribes and their rights, but also protect the Peruvian Amazonian Basin from further damage.

Introduction: Natural resources, indigenous peoples and their rights in international law

> "Their rights to land, resources and, more broadly speaking, to practice their distinct livelihoods, need to be claimed and defended again and again, even when they have already been sanctioned by national law or international conventions."[1]

[1] International Work Group for Indigenous Affairs (IWGIA), "The Indigenous World 2006," Copenhagen 2006, p.11, http://www.iwgia.org/graphics/Synkron-Library/Documents/publications/Downloadpublications/IndigenousWorld/IW%202006/IW2006%28573pages%29.pdf, (accessed 23rd September 2010).

Natural resources share a complex history with countries across the globe. They can create many positive benefits, from providing valuable income for national progress to forging trade links with developed countries. On the other hand, these positive contributions are mirrored by many negative repercussions, from funding civil wars, and prolonging social strife and conflict through to maintaining corrupt and unaccountable governments, who only allow a tiny minority of the nation's people to prosper from the riches of natural resources.

This article explores one such negative connotation of natural resources, in this case, petroleum. It highlights how the discovery of oil in Peru and Ecuador has led to the mismanagement of their economic policy which threatened many of their own citizen's livelihoods and one of the world's most richly diverse environmental locations, the Amazon. Indigenous peoples, who reside within both countries, have for years had their voices ignored by successive governments, who wished to extract petroleum, even if it meant further marginalising the expressed wishes of their own citizens. Consequently, the article will begin by setting out the international laws which should be protecting these native groups from such actions before moving into a brief narrative of the Western Amazonian Basin and its environmental and social significance for the Indians who live there.

It will then analyse Peru's current plans concerning the 'mega concession' and will provide documented evidence of the ramifications such a policy could have, both environmentally and socially. This will be achieved through a case study analysis of the Achuar people of north-eastern Peru and the impact extraction has had on their territory, health and environment, before moving on to examine how the government's contempt towards the Indians led to social unrest during 2008 and 2009. This could be echoed on a far wider and possibly more violent scale if the mega concession began extraction in the future.

Finally, the article will provide a comparative analysis of Ecuador, whose history

concerning extraction is none too dissimilar. However, it is President Correa's bold, green approach to oil in the Yasuni National Park that could supply Peru with a credible alternative, thus allowing the country to not only respect the wishes of the local peoples, but also maintain one of the world's most precious environmental regions. These inter-linked sections will utilise a range of scholarly texts, library and online resources alongside Non-Governmental Organisations and charities reports in order to present a broad academic platform from which to illustrate the above focus.

Before we begin to analyse Peru, it would be beneficial to have a definition of the term 'indigenous peoples' and also examine international law concerning these aforementioned peoples and their rights surrounding natural resources. At an international level, it is important to stress that "indigenous peoples" is not a precise term of art with a single fixed meaning,"[2] as the sheer variety of approaches taken by traditional peoples, states, and scholars testifies.[3] Instead, the United Nations (UN) has created a working definition which includes a number of basic ideas surrounding native peoples. Firstly, they have "historical continuity with pre-invasion and...colonial societies that developed on their territories," and "consider themselves distinct from other sectors of the societies," while they wish to develop and transmit their ancestral territories and ethnic identities as their basis to future generations.[4] Similarly, the International Labour Organisation (ILO) Convention No.169 contains a broader statement of coverage rather than a definition, and

[2] Benedict Kingsbury, "Indigenous Peoples" in International Law: A Constructivist Approach to the Asian Controversy," *The American Journal of International Law,* 92-3 (1998), p.420. See also: United Nations Permanent Forum on Indigenous Issues, "Indigenous peoples, indigenous voices," p.1, http://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf, (accessed 26th September 2010).
[3] Miriam J. Aukerman, "Definitions and Justifications: Minority and Indigenous Rights in a Central/East European Context," *Human Rights Quarterly,* 22-4 (2000), p.1015.
[4] United Nations Department of Economic and Social Affairs, "The Concept of Indigenous Peoples," (19-21 January 2004), http://webcache.googleusercontent.com/search?q=cache:9rD7tG63SQEJ:www.un.org/esa/socdev/unpfii/documents/workshop_data_background.doc+the+concept+of+indigenous+peoples&cd=1&hl=en&ct=clnk&gl=uk&client=firefox-a, (accessed 26th September 2010).

applies to peoples who are culturally or socially distinct.[5]

When looking at South America, figures from CEPAL [the Economic Commission for Latin America and the Caribbean], reveal that there are approximately 642 indigenous groups in the region with a population fluctuating between 30 and 50 million and growing.[6] Historically, the Indians, their traditions and cultures have always been under threat since the days of European colonisation when they were regarded as a problem, "the savage otherness" hostile to (European) civilisation."[7] Many of these communities have low standards of living and abject poverty and are often the victim of discrimination and marginalisation from wider society and government.[8] A root cause of this poverty is their deprivation to land rights and the natural resources contained therein. Indeed, the International Work Group for Indigenous Affairs (IWGIA) believes the gravest threat to all native groups' survival across the globe is the ever growing pressure on the world's natural resources.[9] This has forced resource companies to interact with indigenous peoples in ethically challenging situations or locations, often resulting in conflict.[10]

Nevertheless, a strong body of international law has been laid down which should be safeguarding these communities and providing a platform from which to build relevant national policy. The International Labour Standards Departments 'Indigenous and Tribal Populations Convention' 1957 policy was the first such measure. Article Eleven clearly states

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[5] International Labour Organisation, "Introduction to ILO Convention No. 169," http://www.ilo.org/public/english/region/ampro/mdtsanjose/indigenous/intro169.htm, (accessed 23rd September 2010).
[6] International Labour Organisation, "Indigenous and tribal peoples, Latin America," http://www.ilo.org/indigenous/Activitiesbyregion/LatinAmerica/lang--en/index.htm, (accessed 23rd September 2010).
[7] Guillermo de la Pena, "Social and Cultural Policies Toward Indigenous Peoples: Perspectives from Latin America," *Annual Review of Anthropology,* 34 (2005), p.719.
[8] International Work Group for Indigenous Affairs, "Latin America-the programme strategy," p.3, http://iwgia.synkron.com/graphics/Synkron-Library/Documents/AboutIWGIA/IWGIA%27s%20activities/LASTRATEGY2004.pdf, (accessed 23rd September 2010).
[9] IWGIA, "The Indigenous World 2006," p.12.
[10] David A. Lertzman and Harrie Vredenburg, "Indigenous Peoples, Resource Extraction and Sustainable Development: An Ethical Approach," *Journal of Business Ethics,* 56-3 (2005), p.240.

that "[t]he right of ownership...over the lands these populations...occupy shall be recognised."[11] This convention was revised through the 1989 ILO No.169. A range of clauses stipulate that traditional groups should have their civil liberties surrounding natural resources on their land specially safeguarded and they must be allowed to freely participate in all levels of decision making affecting them, which is of particular importance surrounding state exploration or exploitation of natural resources.[12] Peru's ratification of the treaty in 1994 appears to have been forgotten by successive governments.[13]

The UN has also endorsed its Declaration on the Rights of Indigenous Peoples in 2007. This established that countries shall prevent "[a]ny action which has the aim or effect of dispossessing them of their lands... or resources."[14] Indigenous peoples also have legitimate rights to own, use, develop and control this land and resources,[15] though Stocks believes that the organisation has treaded lightly about supporting independent or autonomous ethnic territories within the borders of states.[16]

Even so, the quest for the worlds dwindling natural resources has forced native Indians rights to be disregarded and their Amazonian homes to be threatened. This is seen most strikingly within Peru, where current government policy menaces indigenous peoples and the environment on a scale not hitherto seen before.

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[11]International Labour Organisation, "Indigenous and Tribal Populations Convention, 1957," http://www.ilo.org/ilolex/cgi-lex/convde.pl?C107, (accessed 23rd September 2010).
[12]International Labour Organisation, "ILO Convention No.169," http://pro169.org/?page_id=9, (accessed 14th September 2010).
[13] It is important to note here that Peru is not unique in its violations. In Brazil (a signatory since 2002), the National Congress approved the construction of the Belo Monte Dam "without any consultation with indigenous groups." Garrick Bailey and James Peoples, *Essentials of Cultural Anthropology*, (Belmont, CA, USA: Wadsworth Cengage Learning, 2011 Second Edition), p.265. See also: Louise Forline and Eneida Assis, "For Whom the Turbines Turn: Indigenous Citizens as Legitimate Stakeholders in the Brazilian Amazon," in Kate A. Berry and Eric Mollard eds., *Social Participation in Water Governance and Management, Critical and Global Perspectives*, (London: Earthscan, 2010), p.23-44.
[14] United Nations Permanent Forum on Indigenous Issues, "United Nations Declaration on the Rights of Indigenous Peoples," Adopted by the General Assembly 13th September 2007, Article 8, Clause 2B, p.5, http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf, (accessed 14th September 2010).
[15] Ibid, Article 26, Clause 2, p.10.
[16] Anthony Stocks, "Too Much for Too Few: Problems of Indigenous Land Rights in Latin America," *Annual Review of Anthropology*, 34 (2005), p.90.

The Amazonian Basin

"Amazon is one of the richest areas in the world in animal and plant diversity. There are more plant species in one hectare in [the] Amazon than the whole of Europe."[17]

-Greenpeace USA

"Today, despite the population decimation, [native] peoples still live in American rainforests, although virtually all have been affected by the outside world."[18]

-Rhett A Butler

Within this article, the main focus will be on the Western Amazonian, an area that still maintains large tracts of intact tropical rainforest and also has a high probability of stable climatic conditions in the face of global warming.[19] This is in stark contrast to the Eastern region of the Amazon, where global attention has been focused, but which will unfortunately have a high probability of sustained massive deforestation, seen most starkly with the near disappearance of Brazil's unique Atlantic forest.[20]

The Western Amazonian Basin includes parts of Bolivia, Colombia, Ecuador, Peru and Western Brazil. "It is one of the most biodiverse regions on Earth for a wide range of taxa, including birds, primates, amphibians, and trees, and still contains large, relatively contiguous areas of primary rainforest."[21] This region is one of the only places in the world

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[17] Greenpeace USA, "The Ecological Importance of the Amazon," (1st January 2001), http://www.greenpeace.org/usa/en/news-and-blogs/news/the-ecological-importance-of-t/, (accessed 3rd February 2011).
[18] Rhett A. Butler, "People in the Amazon Rainforest," *Mongabay,* http://rainforests.mongabay.com/amazon/amazon_people.html, (accessed 3rd February 2011).
[19] Matt Finer, Clinton N. Jenkins et., al., "Oil and Gas Projects in the Western Amazon: Threats to Wilderness , Biodiversity, and Indigenous Peoples," *Plos ONE,* (August 2008), From: http://www.plosone.org/article/info%3Adoi/10.1371/journal.pone.0002932, (accessed 29th January 2011).
[20] Vinod Thomas, "Second Forward" in Sergio Margulis *Causes of Deforestation of the Brazilian Amazon*, World Bank Working Paper No.22, (Washington, D.C. The World Bank, 2004), p.ix.
[21] Matt Finer and Marti Orta-Martinez, "A second hydrocarbon boom threatens the Peruvian Amazon: trends, projections, and policy implications," *IOPscience,* (January-March 2010), p.1, http://iopscience.iop.org/1748-

that can support over 200 species in any given area,[22] and has an estimated regional flora number of between 3000-3500.

Coupled to its environmental importance, is the Amazon's role as a societal home for indigenous communities. Throughout the countries that make up the entire Amazon Basin, there are many native groups that avoid or limit their relations with those outside their kin network, due in large part to the appalling persecution and disease caused by the late 1800s-early 1900s rubber boom.[23] These peoples have a direct dependence on the rainforest (as well as other physical environments) as a source of their resources to live.[24] This practical role is linked to the idea of *Tierra* (land or soil) which referred to ancestral space of indigenous sociality. In the Quichua language [one of many indigenous languages], this articulated as "*nucanchi rucuguna hoinay causana pachamama* ("the land where our ancestors have always lived")-the domain in which cultural integrity was sustained and nurtured."[25]

Tierra shares similarities to the belief of *The jantun sacha* (big forest) in which the rivers, streams and groves of the Amazon have been imbued with specific histories,

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9326/5/1/014012/pdf/1748-9326_5_1_014012.pdf, (accessed 27th January 2011). For more information on the fauna and flora see: Gerardo Ceballos and Paul R. Ehrlich, "Global mammal distributions, biodiversity hotspots, and conservation," *Proceedings of the National Academy of Sciences,* 103-51, pp.546-547; Gerardo Ceballos, Paul R. Ehrlich et., al., "Global Mammal Conservation: What Must We Manage?" *Science,* 309-5734 (July 2005), pp.603-607; Pablo Puertas and Richard E. Bodmer, "Conservation of a high diversity primate assemblage," *Biodiversity and Conservation*, 2-6 (1993), pp.586-593; John Terborough, Scott K. Robinson et., al., "Structure and organisation of an Amazonian forest bird community," *Ecological Monographs,* 60 (1990), pp.213-238; Tiffany M. Doan and Wilfredo Arizabal Arriaga, "Microgeographic Variation in Species Composition of the Herpetofaunal Communities of Tambopata Region, Peru," *Biotropica,* 34-1 (2002), pp.101-117; Hans Ter Steege, Nigel Pitman et., al., "A spatial model of tree (x-diversity and tree -density for the Amazon," *Biodiversity and Conservation,* 12-11 (2003), pp.1-19 and Nigel C. A. Pitman, Hugo Mogollon et., al., "Tree Community Change across 700 km of Lowland Amazonia Forest from the Andean Foothills to Brazil," *Biotropica,* 40-5 (2008), pp.525-535.

[22] Amazon Watch and Save America's Rainforests, "ConocoPhillips in the Peruvian Amazonian," (2009), p.11-12, http://saveamericasforests.org/Yasuni/Publications/conoco2009.pdf, (accessed 14th September 2010).

[23] Dora A. Napolitano and Aliya S. S. Ryan, "The dilemma of contact: voluntary isolation and the impacts of gas exploitation on health and rights in the Kugapakori Nahua Reserve, Peruvian Amazon," *Environmental Research Letters 2* (2007), p.1, http://iopscience.iop.org/1748-9326/2/4/045005/pdf/1748-9326_2_4_045005.pdf, (accessed 29th January 2011).

[24] Robin Wall Kimmerer, "Weaving Traditional Ecological Knowledge into Biological Education: A Call to Action, *BioScience*, 52-5 (2002), pp.432-433.

[25] Suzana Sawyer, *Crude Chronicles: indigenous politics, multinational oil, and neoliberalism in Ecuador,* (Durham: Duke University Press, 2004), p.48.

mythologies, identities and rights.[26] Thus, the Amazon is not only a home, but also a rich tapestry, a living blueprint for each community and a connection to their ancestral past and heritage, just as the many historical buildings, battlefields, monuments and museums provide the Western world with theirs.

Unfortunately, although the Western Amazon's biocultural importance has been solidly documented, it is still threatened by the pressure to extract large untapped reserves of oil and gas which is part of a wider drive of homogenous globalisation.[27] Across the Amazon, national governments continue to delimit specific geographic areas or 'blocks' that become zones for hydrocarbon activities, which can be leased to multinational energy companies for exploration and production. Over 180 oil and gas blocks, stretching over 688,000 km2 (170 million acres) now cover the Western region, an area nearly the size of Texas.[28] It is from this broader Western area that this article will now focus on Peru and the threat that the Basin is facing there.

Peru

> "We have seen with our own eyes how the company has worked here the last ten years. Now the rivers are polluted, the land polluted, the air polluted, the forest too."[29]
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> -Pitur Unti Saant, Achuar leader and elder from Unkum, a community right next to oil operations in Peru

[26]Suzana Sawyer, *Crude Chronicles,* p.51.
[27] Richard J. Blaustein, "Protected Areas and Equity Concerns," *BioScience*, 57-3 (2007), p.216.
[28] PHYSorg.com, "Oil and gas projects in western Amazon threaten biodiversity and indigenous peoples," (13th August 2008), p.1, www.physorg.com/pdf137825493.pdf, (accessed 14th September 2010).
[29]Amazon Watch, "The Achuar of the Pastaza and Morona," http://amazonwatch.org/work/achuar, (accessed 29th January 2011).

The Peruvian Amazon, which covers nearly two thirds of the country,[30] contains a substantial proportion of these hydrocarbon concessions.[31] Since 2005, Peru has created and auctioned off dozens of these sites with concessions jumping from roughly 15 per cent to well over 70 per cent.[32] In April 2009, PeruPetro, the country's oil licensing agency, signed contracts with international companies for a further 15 Amazonian blocks, which has led to at least 35 multinational oil and gas companies operating there.[33] Although the government has defended these actions as an attempt at opening their country up for business, Peruvian indigenous federations and environmental groups have reiterated their concern at this chaotic oil rush.[34] It is clear to see why.

> The only areas fully protected...are national parks and...historic sanctuaries, which cover ~12% of the...Peruvian Amazon. However, 20 blocks overlap 11 less strictly protected areas, such as Communal Reserves... [whilst] 58 of the 64 blocks overlay lands titled to indigenous peoples.[35]

A recipient of these new concessions is ConocoPhillips, a United States' energy company who hold exploration and drilling rights to five interconnected sites (deemed to be a mega concession), covering over 10.5 million acres of rainforest. This huge area is home to a number of Indian peoples including the Kichwa, Iquito, Arabela Abijiras, Taromenane, and Pananujuri and other groups living in voluntary isolation.[36] Aside from the potential socio-cultural damage to these communities, the ConocoPhillips blocks cover 45.6 per cent of two preservation areas; the Pucacuro Reserved Zone and the Alto Nany-Pintuyacu-Chambira

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[30] Neil E. Schlecht, *Frommer's Peru,* (Hoboken, NJ, USA: Wiley Publishing, Inc, 2010), p.36.

[31] William F. Lawrence, Scott Bergen et., al., "The Future of the Amazon" in Eldredge Bermingham, Christopher W. Dick et., al., eds., *Tropical Rainforests, Past, Present, and Future,* (Chicago: The University of Chicago Press, Chicago, 2005), p.595.

[32] Finer and Orta-Martinez, "A second hydrocarbon boom threatens the Peruvian Amazon," p.10.

[33] Finer, Jenkins et., al., "Oil and Gas Projects in the Western Amazon."

[34] Finer and Orta-Martinez, "A second hydrocarbon boom threatens the Peruvian Amazon," p.10.

[35] Finer, Jenkins et., al., "Oil and Gas Projects in the Western Amazon."

[36]Amazon Watch and Save America's Rainforests, "ConocoPhillips in the Peruvian Amazon," p.15.

Regional Conservation Area. [37] The Cocama Association for the Development and Conservation of San Pablo de Tipishca (ACODECOSPAT) who represent 54 of the indigenous communities affected has publicly condemned the creation of these concessions on their land without any consultation,[38] a key cornerstone of the ILO Convention.

The damage to the environment and the indigenous peoples within this mega concession could be devastating. In order to illustrate the territorial, health and environmental repercussions that could occur, the Corrientes region of Northern Peru will be illustrated.

The Corrientes River Basin

This region is resident to the longest running petroleum production operation in the Peruvian Amazon,[39] and also the home of the Achuar tribe, part of the Jivaro people. They chiefly inhabit the Basins of the rivers Pastaza, Monona and Corrientes (alongside her main tributary-the Pucacuro). Communities are spread out along both sides of the Peruvian-Ecuadorian border, with a total population estimated at close to 20,000 in both countries.[40] A brief historical narrative shows how the Achuar people have had their territorial rights ignored in order for energy conglomerations to extract this black gold.

Oil drilling operations began in the 1970s under Occidental Petroleum Corporation of Peru. Chiefly, this has centred on the Corrientes River, home to more than 4,000 Achuar in 32 communities. Although the Achuar were granted 'Native Community Titles' for their land, these covered only a third of the ancestral lands they used for hunting or collecting

[37] Amazon Watch and Save America's Rainforests, "ConocoPhillips in the Peruvian Amazon,"p.3.
[38]Ibid, p.10.
[39] Marti Orta Martinez, Dora A Napolitano, et., al., "Impacts of petroleum activities for the Achuar people of the Peruvian Amazon: summary of existing evidence and research gaps," *Environmental Research Letters,* 2-4 (2007), p.2, http://iopscience.iop.org/1748-9326/2/4/045006, (accessed 27th January 2011).
[40]Martinez, Napolitano, et., al., "Impacts of petroleum activities for the Achuar people of the Peruvian Amazon: summary of existing evidence and research gaps," p.2.

forest products,[41] which has made it easier for energy concessions to be issued with such a fragmented territorial picture. Consequently, the oil concessions known as Blocks 1 AB and 8 cover the entire Corrientes Basin and both Achuar homes and hunting grounds.[42] The situation did not improve with time for the communities. Originally, crude oil was transported by cargo ship, but from the late 1970s, it was pumped directly from the wells to the Bayovar refinery on the Pacific coast along the North Peruvian Oil Pipeline.[43] This meant further Achuar land was crisscrossed with smaller pipelines which connected producing wells and storage sites.

Historically, Blocks 1 AB and 8 became the most productive in Peru, and at their peak accounted for 65 per cent of national petroleum production.[44] Thus, although approximately 600 million barrels of oil was produced up to 2002, when they were sold to PlusPetrol, native territorial rights had been trampled upon. Moreover, the production of oil led to a sizeable volume of non-treated water which was discharged straight into rivers and streams,[45] and has had a disastrous affect on the health of the Achuar inhabitants.

The dumping of untreated production waters into freshwater streams is a prime example of how health implications for local residents were ignored. The Achuar reported that contamination resulted in stomach cramps and severe diarrhoea which young children

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[41] Amazon Watch, "The Achuar of the Pastaza and Morona."
[42] Martinez, Napolitano et., al., "Impacts of petroleum activities for the Achuar people of the Peruvian Amazon: summary of existing evidence and research gaps," p.2. The exploration rights for Block 1AB were extended by the Peruvian government in 2001 until 2015, while the Block 8 concession expires in 2026.
[43] Cynrhia Anticona Huaynate, *Heavy metal levels and nutritional status in two indigenous communities of the Corrientes river-Loreto –Peru,* (2008), p.8, http://www.phmed.umu.se/digitalAssets/30/30112_2009-17-cynthia-anticona.pdf, (accessed 28th January 2011).
[44] Martinez, Napolitano, et., al., "Impacts of petroleum activities for the Achuar people of the Peruvian Amazon: summary of existing evidence and research gaps," p.2.
[45] Mark Quarles, "Evaluation of the Success of Remediation Efforts at Petroleum-impacted Sites in the Corrientes Region of Northern Peru," *E-Tech International,* (September 2009), p.8, http://www.etechinternational.org/peru09/05-sept-09_remediation_monitoring1AB_English_FINAL.PDF, (accessed 27th January 2011).

were unable to survive,[46] along with increasing mortality from acute cases of poisoning, cancer and allergic reactions of the skin and eyes.[47] In addition, variations caused to the natural drainage system of the Basin have created areas of standing water which are "conductive to the proliferation of the mosquito *Anopheles* sp., the principle vector for malaria..."[48] The energy companies repeated denials to the Achuar communities of any pollution in their territories has further complicated the matter, which has led to a lack of procedural methods which could educate and warn local inhabitants were a spill or discharge enter the river. Other documented practices which are non-related to waste management but have negative health consequences include the demand for prostitution in local communities and the sexual abuse of Achuar women, which can lead to the additional problem of spreading sexually transmitted diseases.[49]

Therefore, the medical price that the Achuar have to pay for extraction is incalculable. The generation of Indian's who have suffered as a direct result of sloppy or non-existent safety precautions is difficult to quantify but it has been unforgivable for the energy companies to not implement an early warning systems for the local inhabitants. Indeed, hiding behind a wall of denial appears crude when one examines the devastating environmental repercussions that the Corrientes Basin is now in.

This has been documented by E-Tech International, a non-profit environmental consulting organisation based in the United States that has been working in Northern Peru since 2005. They have focused their investigation specifically on the Corrientes Basin and the water disposal production in both blocks.

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[46] Tobias Haller, Annja Blochlinger et., al., eds., *Fossil Fuels, Oil Companies, and Indigenous Peoples, Strategies of multinational oil companies, states, and ethnic minorities Impact on environment, livelihoods, and cultural change,* (Zurich: Lit Verlag GmbH & Co. KG Wien, 2007), p.394

[47] Martinez, Napolitano, et., al., "Impacts of petroleum activities for the Achuar people of the Peruvian Amazon: summary of existing evidence and research gaps," p.4.

[48] Ibid, Authors italics, p.8.

[49] Ibid.

> [In 2005], PlusPetrol...was discharging over one million barrels per day of highly saline and contaminated produced water from its operations...directly to the ground surface or into waterways... The... Achuar, rely on the rivers and streams as a source of drinking...water and as a source of food.[50]

E-Tech collected water and sediment samples from three locations during their inspection of the Pucacuro tributary.[51] A further number of land sites were sampled which had been certified as complete i.e. land rehabilitated by the government.[52] The compiled evidence showed that crude oil was present at two of the four sites, while Hydrocarbon contamination was evident in three of the four sediment samples collected.[53] Shallow groundwater in three of the four sites was found to be in contact with waste, which then flowed towards streams.[54] Verification of severe soil erosion was evident in Jibarito 16, and Dorissa 17 remediation sites, which threaten streams and rivers with contamination,[55] whilst current oil spills are "apparently very common in Jibarito 16."[56]

> Other environmental impacts are also reported...: there are innumerable testimonies of illegal logging, illegal trafficking in protected animal species, and hunting and commercialisation of bushmeat, all undertaken by petroleum... workers... to the detriment of indigenous peoples' subsistence resources.[57]

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[50] Quarles, "Evaluation of the Success of Remediation Efforts at Petroleum-impacted Sites in the Corrientes Region of Northern Peru," p.8.

[51] Ibid, p.31.The three sites were Kampa Entsa Upstream, located at the drinking water intake for the Dorissa production station; Dorissa Puenta located 200 metres downstream from an old water discharge pipe and Kempa Entsa Downstream, located downstream of the Dorissa site.

[52] Four sites were chosen with the aid of Federation de Communidades Natives del rio Corrientes (FECONACO) monitors that had been present during the remediation efforts. Ibid, p.15. The sites were; Huayuri 12 (68,000 m2), Jibarito 16 (8,000 m2), Dorissa 12 (200 m2), and Dorissa 17 (5,000 m2).

[53] Ibid, p.35.

[54] Ibid.

[55] Quarles, "Evaluation of the Success of Remediation Efforts at Petroleum-impacted Sites in the Corrientes Region of Northern Peru," p.36. See also: pp.21-22 for Jibarito 16 and pp.28-29 for Dorissa 12.

[56] Ibid.

[57] Martinez, Napolitano, et., al., "Impacts of petroleum activities for the Achuar people of the Peruvian Amazon: summary of existing evidence and research gaps," p.4.

In the face of such overwhelming evidence, it becomes clear how large the impact of petroleum extraction has had on the Peruvian Amazon.[58] It has affected communities and shattered lives through disease and ill health, created numerous environmental scars on the ground and led to sustained pollution which has spread throughout the river systems.[59]

Furthermore, Lima's policy of extraction at any cost has led them to ignore years of indigenous territorial rights violations and also question the evidence of 'un-contacted tribes' in many of the concession areas,[60] even though documented proof refutes this.[61] The 2008 'Laws of the Jungle' was a direct policy result of this governmental view, which saw the rainforest as both 'empty' and underdeveloped, thus allowing private interests to buy up native lands and resources without indigenous consent,[62] in direct contradiction of the ILO No.169 and the UN deceleration. These environmental, social and legal factors became a concoction for social unrest which exploded in 2008 and 2009 through rallies and blockades across Peru's Amazon.[63] The government's heavy handed response led to the death of 10 protestors and 24 police officers in the town of Bagu, 600 miles north of Peru's capital.[64] However, two of the most controversial aspects of the decree were repealed, heralding a victory, albeit a bloody one, for the Indian communities. Additionally, the ILO has called on

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[58] There are numerous other cases. In the Amarkaeri Communal Reserve, the Harakmbut Indian peoples have been fighting against Hunt Oil of the U.S and Repsol of Spain who bought Lot 76 in 2006, which overlaps a majority of the reserve and sixteen titled native community areas.
[59] Most recently, the Achuar are now threatened by Talisman Energy, Canada who has been awarded two oil blocks (64 and 101) which roughly cover 4 million acres (1.7 million hectares) of pristine rainforest along the rivers Morona and Pastaza, an area used by the people for fishing and hunting.
[60] Amazon Watch notes that in October 2007, President Garcia in a piece entitled 'The Orchard Dog Syndrome' argued that the figure of the un-contacted native has been created to prevent rainforest energy exploration. See: Amazon Watch and Save America's Rainforests, "ConocoPhillips in the Peruvian Amazon," p.19.
[61] Within the region of Ecuador, Peru, Brazil and Bolivia, the UN puts the figure at 64 indigenous peoples. See: United Nations, "Indigenous people living in voluntary isolation," http://www.un.org/events/tenstories/06/story.asp?storyID=200, (accessed 31st January 2011). See also: Dora A. Napolitano, "Towards Understanding the Health Vulnerability of Indigenous Peoples Living in Voluntary Isolation in the Amazon Rainforest: Experiences from the Kugapakori Nahua Reserve, Peru," *EcoHealth,* 4-4 (2007), pp.515-531.
[62] Kim MacQuarrie, "Indigenous People Fight Against Peru's "Law of the Jungle," (May-June 2009), http://www.lastdaysoftheincas.com/wordpress/?p=293, (accessed 27th September 2010).
[63] Dan Collyns, "Peru polarised after deadly clashes," *BBC News*, (19th June 2009), http://news.bbc.co.uk/1/hi/8093729.stm, (accessed 29th January 2011).
[64] Emma Wilson and Judy Kuszewski, *Shared value, shared responsibility,* (London: International Institute for Environment and Development (IIED), 2011), p.13.

the Peruvian government to suspend new contracts until an adequate consultation process is in place, although it lacks any mechanism to enforce this decision.[65]

Thus, the blockades and the ILO have not stopped the march of hydrocarbon concessions in the Peruvian Amazon. Indeed, the onset of wider petroleum extraction in the future, seen with the ConocoPhillips mega concession, and the impact this will have, could lead to larger and ultimately perhaps more violent attempts at preventing extraction. One has only to look across the Atlantic at the Niger Delta in Nigeria to witness the destabilising effect that a low intensity clash between the state and the Delta people has, both on wider Nigerian society and the environment.

Peru does not have to walk down this path. There is an alternative, one which can be seen further North in the continent. In Ecuador, consultation and respect for native peoples and the environment has been at the forefront of the current government's policy proposal. This next section outlines the historical context for President Correa's policy before analysing whether it provides Peru with a credible substitute which can safeguard the environment, culture and rights of indigenous peoples.

Ecuador

"Ecuador, a less developed country in South America, remains dependent of petroleum exports, which have not led to economic growth and diversification, did not reduce poverty and inequality and had strong environmental impacts."[66]

-Carlos Larrea and Lavinia Warnars

[65] Amazon Watch, "Group Criticises Peru's Plan to Drill in Amazon, (May 21st 2010), http://amazonwatch.org/news/2010/0521-group-criticizes-perus-plans-to-drill-in-amazon, (accessed 29th January 2011).
[66] Carlos Larrea and Lavinia Warnars, "Ecuador's Yasuni-ITT Initiative: Avoiding emissions by keeping petroleum underground," *Energy for Sustainable Development,* 13-3 (September 2009), pp.219-223.

Ecuador has a larger indigenous demographic than its Southern neighbour, standing at an estimated 40 per cent of the population.[67] Yet historically, like Peru, native groups have been excluded from directing or even influencing political or economic processes,[68] which has led to considerable exploitation and conflict surrounding oil extraction.[69]

"The Amazon basin of Ecuador, known as *el Oriente* (the provinces of Sucumbios, Orellana, Napo, Pastaza, Morona, Santiago, and Zamora-Chinchipe), consist of more than 100,000 km2 of tropical rainforest lying at the headwaters of the Amazon River network."[70] The region, contains a hugely diverse range of flora and fauna, and is also the home of some 500,000 inhabitants and eight indigenous peoples.[71] It was here that the discovery of petroleum by Texaco (now Chevron) in 1967 dramatically altered the future of the country. Prior to the oil boom, Ecuador was one of the poorest countries of Latin America, but petroleum production has led to an average of 7 per cent growth annually, alongside a rise in per capita income from US$ 290 in 1972 to US$ 1,200.[72] With this revenue, successive military governments opted for a strong modernisation strategy[73] in order to maximise their economic output.

The drive to exploit output and the subsequent carte blanche given to the petroleum companies was coupled to subverting native claims of territorial ownership, whose ancestral land covered many oil producing sites. Prior to 1992, indigenous land ownership was not recognised in the Amazon, with the result that petroleum companies paid virtually no fines

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[67] Sawyer Sawyer, *Crude Chronicles,* p.10.
[68] Ibid.
[69] Paul Sabin, "Searching for Middle Ground, Native Communities and Oil Extraction in the Northern and Central Ecuadorian Amazon, 1967-1993," *Environmental History,* 3-2 (1998), p.144.
[70] Miguel San Sebastian and Anna-Karin Hurtig, "Oil exploitation in the Amazon basin of Ecuador: a public health emergency," *Rev Panam Salud Publica,* 15-3 (2004), p.205, http://www.scielosp.org/pdf/rpsp/v15n3/a14v15n3.pdf, (accessed 1st February 2011).
[71] Robert B. Wallace, *Maxcy-Rosenau-Last- Public Health & Preventive Medicine,* (USA: The McGraw-Hill Companies Inc. 15 ed. 2008), p.811.
[72] San Sebastian and Hurtig, "Oil exploitation in the Amazon basin of Ecuador: a public health emergency," p.205.
[73] Sven Wunder, *Oil Wealth and the Fate of the Forest,* (London and New York: Routledge, Taylor and Francis Group, 2003), p.214.

or compensation for mismanagement for decades,[74] as Indian territorial claims were indefensible. Within the Pastaza Province, the Sarayaku people provide an example of this policy. They are actively opposed to oil drilling concessions on their territory and have proposed sustainable development mechanisms to preserve their culture. The Inter-Commission of Human Rights ordered the Ecuadorian government to meet with Sarayaku representatives, but so far, the government has paid scant attention to human rights recommendations.[75] Consequently, decades of colonisation has transformed forested Indian territory into agricultural and pasture land, which has forced tribes further back into the rainforest,[76] and heralded an influx of settlers who further harmed the environment through logging and the introduction of domestic animals.[77]

In addition, extractive industries remained largely unregulated and consequently unmitigated, as the Ecuadorian government only establishing a small environmental agency in 1984, which had given the industry free reign for almost two decades. 'Good practice' had not been, nor would continue to be a feature of their extractive operations. Thus, health[78] and environmental problems[79] have been documented by the Indians. Higher rates of

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[74] Sabin, "Searching for Middle Ground, Native Communities and Oil Extraction in the Northern and Central Ecuadorian Amazon, 1967-1993," p.150.

[75] Sara Repucci and Christopher Walker (eds), *Countries at the Crossroads: a survey of democratic governance,* (Oxford: Rowman & Littlefield Publishers, Inc. 2005), p.199.

[76] Suzana Sawyer, "Indigenous Initiatives and Petroleum Politics in the Ecuadorian Amazon*,"* in Nora Haenn and Richard Wilk, eds., *The Environment in Anthropology, A Reader in Ecology, Culture, and Sustainable Living*, (New York: New York University Press, 2006), p.363.

[77] United Nations Conference on Trade and Development, "World Investment Report, Transnational Corporations, Extractive Industries and Development," (Switzerland: United Nations Publication, 2007), p.151.

[78] Anna-Karin Hurtig and Miguel San Sebastain, "Geographical differences in cancer incidence in the Amazon basin of Ecuador in relation to residence near oil fields," *International Journal of Epidemiology*, 31-5 (2002), pp.1021-1027; AK Hurtig and M San Sebastian, "Epidemiology vs epidemiology: the case of oil exploitation in the Amazon basin of Ecuador," *International Journal of Epidemiology,* 34-5 (October 2005), pp.1170-1172; Anna-Karin Hurtig, Miguel San Sebastian, et., al., "Incidence of Childhood Leukaemia and Oil Exploitation in the Amazon Basin of Ecuador," *International Journal of Occupational Environmental Health,* 10-3 (2004), pp.245-250; Miguel San Sebastien, Ben Armstrong et., al., "Outcomes of Pregnancy among Women Living in the Proximity of Oil Fields in the Amazon Basin of Ecuador," *International Journal of Occupational Environmental Health,* 8-4 (2002), pp.132-319.

[79] Between 1972 and 1992, the Texaco operated Trans-Andean pipeline spilled an estimated 16.8 million gallons of crude oil into Amazonian headwaters, one and a half times the amount spilled by the Exxon Valdez. See: Norman E. Whitten Jr. and Dorothea Scott Whitten, *Histories of the Present,* (USA: University of Illinois, 2011), p.134.

abortion, elevated rates of fungal infection, dermatitis, headache and nausea, were all linked to contaminated drinking and bathing water,[80] primarily from benzene, polycyclic, mercury and arsenic.[81] Poorly maintained storage pools overflowing,[82] unlined pits left in the rainforest and the dumping of 18 billion gallons of toxic production water, resulted in cancers, skin lesions, blindness, birth defects and spontaneous abortions.[83] Oil workers also introduced various diseases among the communities which further harmed their way of life.[84] Hence, Theodore Macdonald is not wrong to categorise Texaco's 1968-1992 operations as having created a "rainforest Chernobyl"[85] or Amazon Watch to label it the worst oil disaster in the world.[86]

This sustained mismanagement of oil production led to another historic event. In 1992, Plaintiffs, who represented 30,000 Ecuadorian's, filed a lawsuit against Texaco in the United States for the cleanup of the contamination and the numerous illnesses and disease reported by local people. After more than seventeen years of litigation, the Judge presiding over the case announced the formal close of the evidentiary phase in December 2010, with a result widely expected in autumn 2011. With this in mind, it becomes clearer how both Peru and Ecuador have trodden a path that has resulted in horrifying environmental statistics, widespread health related deaths and at the heart, a lack of respect for

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[80] Daniel E. Lee & Elizabeth J. Lee, *Human Rights and the Ethics of Globalisation,* (Cambridge: Cambridge University Press, 2010), p.232-233.
[81] Wallace, *Maxcy-Rosenau-Last- Public Health & Preventive Medicine,* p.812.
[82] Sabin, "Searching for Middle Ground, Native Communities and Oil Extraction in the Northern and Central Ecuadorian Amazon, 1967-1993," p.150.
[83] Theodore H. Macdonald, *The global human right to health: dream or possibility?* (Oxon, UK: Radcliffe Publishing Ltd, 2007), p.85. The dumping of such water had been prohibited in the United States decades before Chevron began operation in Ecuador, and the company itself owned a patent on "re-injection" technology which could have prevented such an incident. See: Pablo Fajardo and George Byrne, "Corporate Accountability, Human Rights and Pursuing Justice in the Ecuadorian Amazon: Attorney Pablo Fajardo's Perspective on Aguinda v. Chevron," *Harvard International Law Journal,* 51 (August 2010), p.181.
[84] United Nations Conference on Trade and Development, *"World Investment Report, Transnational Corporations, Extractive Industries and Development,"* p.151.
[85] Macdonald, *The global human right to health: dream or possibility?* p.85.
[86] Amazon Watch, ChevronToxico, "Understanding Recent Developments in the Landmark Chevron-Ecuador Case, Clean Up Ecuador Campaign Briefing Paper," (Winter 2011), p.1, http://chevrontoxico.com/assets/docs/Chevron-Ecuador-Briefing-Winter-2011.pdf, (accessed 3rd February 2011).

indigenous peoples and their rights. In Ecuador these people have suffered through decades of mistreatment, their voices ignored. Consequently, whilst consecutive Ecuadorian governments from the 1970s onwards

> ....hailed [oil] as the source of...development, for most Indian leaders, state oil policies constituted the core of “antidevelopment”, a condition “characterised by the exclusion and marginalisation of our pueblos [communities] in the negotiations, decisions, and benefits” surrounding petroleum.[87]

It is at this most recent point in Ecuador’s history that an altogether bolder policy was laid out. Although Ecuador remains one of Latin America’s largest oil exporters,[88] the United States Energy Information Administration, has noted that Ecuadorian crude oil production has fallen in recent years, due to a higher natural decline from existing oil fields.[89] For the country to increase its crude oil production, extraction would have to begin in further untapped rainforest areas, such as the Ishpingo-Tapococha-Tiputini (ITT) block located in the Yasuni National Park. However, a radical new strategy, which could change the way countries view natural resources in environmentally sensitive locations, has been formulated under President Rafael Correa, known as the Yasuni ITT Initiative.

Yasuni ITT Initiative

The oil fields under Yasuni National Park are uniquely situated near the intersection of the Amazon, Andes mountains and equator.[90] The park was created in 1979 and covers approximately 9,820 km2 of land which is surrounded by a 10 kilometer buffer zone in all

[87] Sawyer, *Crude Chronicles,* p.117.
[88] U.S. Energy Information Administration, “Country Analysis Briefs: Ecuador,” http://www.eia.doe.gov/emeu/cabs/Ecuador/Background.html, (accessed 1st February 2011).
[89] U.S. Energy Information Administration, “Oil,” http://www.eia.gov/countries/cab.cfm?fips=EC, (accessed 1st February 2011).
[90] Matt Finer, Remi Moncel et., al., “Leaving the Oil Under the Amazon: Ecuador’s Yasuni-ITT Initiative,” *Biotropica,* 42-1 (2010), p.64.

directions except to the East, where it meets the Ecuador-Peru border.[91] Statistics of amphibian, bird, mammal and vascular plant species for South America reveal Yasuni's unique biogeographic positioning for all four taxonomic groups[92] and is a world richness centre for amphibians, reptiles, bats and trees. Yasuni is also the home of the Waorani (or Huaorani), a recently contacted indigenous group, who have a long and violent history of protecting their territories from unwanted intruders.[93] Their relatives, the Tagaeri and Taromenane, continue to live in voluntary isolation and have no peaceful contact with the outside world.[94] Due to this bicultural significance, Yasuni and much of the adjacent area that is now the Waorani Ethnic Reserve was designated a UNESCO (United Nations Educational, Scientific and Cultural Organisation) Man Biosphere Reserve in 1989.[95]

One of the most serious risks for this park was the ITT oil fields. A preliminary study indicated that development would require six spate drilling platforms stretched across the block and connected by an access train system.[96] However, 2007 saw the implementation of the Yasuni ITT initiative which had a number of overarching goals; to protect one of the world's most biodiverse locations, respect and maintain the livelihoods of the native peoples and avoid the emission of 407 million metric tons of CO2,[97] thus helping to fulfil the

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[91] Margot S. Bass, Matt Finer et., al., "Global Conservation Significance of Ecuador's Yasuni National Park," *PloS One,* 5-1 (January 2010), http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2808245/, (accessed 1st February 2011).
[92] Ibid.
[93] Matt Finer, Varsha Vijay et., al., "Ecuador's Yasuni Biosphere Reserve: a brief modern history and conservation challenges," *Environmental Research Letters 4,* (2009), p.1-2, http://www.ibcperu.org/doc/isis/11183.pdf, (accessed 1st February 2011). See also: Stephen Beckerman, Pamela I. Erickson et., al., "Life histories, blood revenge, and reproductive success among the Waorani of Ecuador," *Proceedings of the National Academy of Sciences of the United States of America (PNAS),* 106-20 (May 2009), pp.8134-8139.
[94] Finer, Vijay et., al., "Ecuador's Yasuni Biosphere Reserve: a brief modern history and conservation challenges," p.2.
[95] See: United Nations UNESCO- MAB Secretariat, "Biosphere Reserves," p.8. http://www.unesco.org/mab/doc/brs/BRList2010.pdf, (accessed 1st February 2011).
[96] Finer, Vijay, et., al., "Ecuador's Yasuni Biosphere Reserve: a brief modern history and conservation challenges," p.12.
[97] United Nations Development Group, Multi-Donor Trust Fund Office, "Ecuador Yasuni ITT Trust Fund," http://mdtf.undp.org/yasuni, (accessed 1st February 2011).

Millennium Development Goals.[98] To achieve these objectives, the plan was to receive financial compensation at least up to the value of half of the profits, which would occur over a ten year period, split into $350 million a year packages.[99] In 2008, a carbon market approach was also introduced, which meant that the international community's compensation must now also be equivalent to the value of the 407 million tons of CO2 from the petroleum in the ground. 'Yasuni Guarantee Certificates' would be issued, with their value updated each year to match market fluctuations.[100]

The income raised will be held by the United Nations Development Programme which established to keep the oil in the biosphere indefinitely.[101] So far, overseas governmental commitments come to around half of what Ecuador needs. The Spanish government has offered $4 million worth of initial funding, whilst Chancellor Merkel has pledged $50 million a year. Aside from these, Ecuador expects the main contributions to come from industrialised countries included in the Annex of the Kyoto Protocol.[102]

The money raised would be allocated to a range of programs including renewable energy projects which will only be open to national institutions in Ecuador so that the money is not funnelled back to foreign corporations.[103] Social development projects including health, education, training, technical assistance, and productive job creation in sustainable activities, such as ecotourism, agriculture, protection of ecosystems' services

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[98] United Nations Department of Economic and Social Affairs, "The Millennium Development Goals Report, 2010," (New York, 2010), pp-52-65, http://www.un.org/millenniumgoals/pdf/MDG%20Report%202010%20En%20r15%20-low%20res%2020100615%20-.pdf, (accessed 5th May 2011).
[99] Finer, Vijay, et., al., "Ecuador's Yasuni Biosphere Reserve: a brief modern history and conservation challenges," p.12.
[100] Remi Moncel, "Ecuador Proposes Leaving Oil Untapped to Protect Forests and People," *World Resources Institute,* (January 2009), http://www.wri.org/stories/2009/01/ecuador-proposes-leaving-oil-untapped-protect-forests-and-people, (accessed 5th May 2011).
[101]United Nations Development Group, Multi-Donor Trust Fund Office, "Ecuador Yasuni ITT Trust Fund."
[102] Carlos Larrea, Natalia Greene, et., al., *Yasuni-ITT: An Initiative to Change History,* p.24, http://yasuni-itt.gob.ec/wp-content/uploads/initiative_change_history_sep.pdf, (accessed 5th May 2011).
[103] Matt Finer and Pamela Martin, "A look at Ecuador's agreement to leave 846 million barrels of oil in the ground," *Mongabay,* (September 2010), http://news.mongabay.com/2010/0913-yasuni_ITT_finer-martin.html, (accessed 1st February 2011).

and agro-forestry will be implemented for local people.[104] Environmentally, the funds will be used to prevent deforestation in forty protected areas of Ecuador,[105] with an additional five million hectares of natural areas that belong to indigenous communities being managed.[106]

Thus, the ITT initiative's aims and their potential benefits must be applauded. It safeguards one of the world's richest environmental regions and also respects the territorial integrity of the Indians. Their spiritual and cultural identities are now able to continue in the fullness of the environment which is so integral to their livelihoods. They themselves could become beneficiaries in other ways through officially maintaining, sustaining and protecting this biosphere. Furthermore, the scheme would have a positive worldwide impact by 'locking in' a large CO2 emission that would have otherwise been released once mining began. The signing of the Accord in August 2010 provides a firm signal of Ecuador's intent for this scheme to not only work, but also an indication to would be investors that their money is being put into a scheme that has been firmly embedded into Ecuador's political psyche.

Conclusion: does petroleum's clear socio-environmental impact herald the need for a fresh policy approach in Peru?

It is clear from the evidence laid out, how petroleum extraction has damaged these two countries. Historically, both looked to oil as a salvation, an economic currency that could bring their nations greater wealth and prosperity. However, human greed caused numerous implications, not least for the indigenous communities whose lands were within

[104] United Nations Development Group, Multi-Donor Trust Fund Office, "Ecuador Yasuni ITT Trust Fund."
[105] Lavinia Warnars, *"The Yasuni-ITT Initiative: an international environmental equity mechanism?"* Master Thesis, Social and Political Sciences of the Environment, Radboud University, (January 2010), p.66, https://docs.google.com/fileview?id=0B59l5zL7zsakMjg5ODljNzEtYWNiNi00YjBmLWIxOGMtMmE4YzBhNThkZThk&hl=en&pli=1, (accessed 18th April 2011).
[106] Silvestrum, *"Analysis of the ITT-Yasuni Initiative vis a vis Carbon Markets,"* (10th June 2009), p.12, http://www.silvestrum.com/_userfiles/files/Market%20Study%20Silvestrum%20English%2010%20June%202009%20version%201_2.pdf, (accessed 10th May 2011).

or near the oil wells. Their way of life is intrinsically linked to that of the rainforest and the wider environment. As has been documented, extraction has led to numerous illnesses great and small, from cancer through to birth defects, leukaemia to eye infections. Generations of native peoples have suffered as a direct result of petroleum extraction and their trials have been shared by the rainforest, which has witnessed polluted rivers, illegal logging, trafficking of rare wildlife and the onset of hydrocarbon pollution in areas surrounding extraction.

A key difference between both countries has been Ecuador's recent forward thinking policy. The detrimental impact that Peru's mega concession could have on the Amazon in this region cannot be emphasised enough. The damage inflicted on the Achuar Indians could be repeated on a scale not hitherto seen before. The concession represents all that is wrong with the oil policy of third world countries such as Peru, which follows the traditional route of ignoring and disrespecting communities surrounding oil wells through a shameful r non-existent consultation process. Furthermore, it is clear that international law has failed these people. ILO No.169 and the UN Declaration on the Rights of Indigenous Peoples should be protecting the civil liberties of these vulnerable and marginalised citizens. Yet, despite these international agreements, they are all too often ignored, even by signatories such as Peru. In order for these agreements to actually work, a regulatory or policing body could, and should be created to hold signatories and their actions to account. Economic sanctions could be used on those who do not abide by the agreed terms.

However, recent Peruvian government policy, seen with the Laws of the Jungle, appears to have been the straw that broke the camel's back. The violent social unrest in 2008 and 2009 may reflect growing anger at the lack of consultation with people who are directly affected by petroleum extraction. Blockades, civil disobedience, mass protest movements and violent clashes may strike Peru again in the future but on a far larger scale,

as the mega concession threatens a greater swathe of the Amazonian and therefore more people.

This resource related social unrest is perhaps one of the many reasons why the current Ecuadorian government have created such a beneficial policy for the environment and its inhabitants. Indeed, historically, successive Ecuadorian governments had ignored Indians legitimate claims to their land. This was finally reversed in 1992, when the issue became caught up in the wider mass movement for indigenous self-determination after 500 years of European domination, the culmination of which was a symbolic march to Quito (the *Caminata de Pastaza a Quito*) which had, by its end, between 5,000 and 10,000 indigenous peoples from all traditional nations involved; Pastaza, Salasaca, Chimborazo, Cotapaxi and Yanu.[107] Coupled with extensive lobbying from the Organisation of Indigenous People of Pastaza (OPIP), the government was forced to grant significant accessions of land from the nation state in the form of land titles. However, greed outshone legitimacy, with Quito's land titles providing no legal control over petroleum activities within them.[108] Two years later, the 'Law for Agricultural Development' was created which would have seen the elimination of communal lands in favour agricultural enterprises and other measures designed in favour of big landowners.[109] This policy not only threatened indigenous agricultural communities but also 90 per cent of the rural population.[110] As a result, the Confederation of Indigenous Nationalities of Ecuador, and other smaller groups such as OPIP, mobilised a *Movilisation por la Vida* (Mobilisation for Life) which orchestrated widespread protests and roadblocks that paralysed the country but led to a radical

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[107] Norman Whitten, Dorothea Scott et., al., "Return of the Yumbo: The Indigenous Caminata from Amazonia to Andea Quito," *American Ethnologist,* 24-2 (1997), p.355.

[108] Sawyer, "Indigenous Initiatives and Petroleum Politics in the Ecuadorian Amazon," p.363.

[109] Nina Pacari, et., al., "Ecuador: Taking on the Neoliberal Agenda," *NACLA Report on the Americas,* 29 (1996), http://www.questia.com/googleScholar.qst;jsessionid=039A3A38A285560DB014BD739882C5C7.inst2_3b?docId=95702128, (accessed 1st February 2011).

[110] Robert Andolina, "Second Indigenous Uprising Secures Concessions on Agrian Reform," *Abya Yala News, The Journal of the South and Meso American Indian Rights Centre (SAIIC),* 8-3 (1994), http://abyayala.nativeweb.org/ecuador/vida_94/andolina.html, (accessed 1st February 2011).

readjustment of the law which permitted the continuation of indigenous and small individual land holdings.

Subsequently, history has shown the damage that previous Quito administrations have done to this marginalised section of society, echoes of which are still felt to this day through court cases and reparations. What is worse is that petroleum mismanagement has not gone away in Ecuador. Since Texaco pulled out of her oil wells in 1992, state owned Petroecuador took ownership and has compiled a deplorable record of environmental responsibility, with more than 1,400 oil spills since 2000 alone.[111] It is no surprise then that after the decades of petroleum mismanagement, the deprivation of indigenous rights and the impact on their health and the sustained damage to the environment, President Correa has considered an alternative policy to extracting oil under Yasuni.

The ITT initiative heralds a new dawn for environmentalists and the local communities of Ecuador's Amazonian rainforest. The scheme represents a policy vision that sees the rainforest in its entirety as an economic stimulant, rather than just the oil beneath it. The rest of the international community, and certainly those countries of the G12, should be looking at concrete ways to fund this scheme which would see Yasuni become an environmentally sustainable park, one which protects the Indians, provides income for the state on a yearly basis and safeguards a hugely important ecosystem.

Could a similar policy be implemented in Peru? Certainly it is feasible, especially given the backing that the UN has shown to Ecuador. Within Peru, areas of great scientific value that are linked to indigenous territory could be part of an enlarged Yasuni initiative that straddled the border, thus strengthening the prestige and financial donations under a twin nation initiative. A great deal of research would need to be conducted into the financial ramifications of such a policy move, i.e. an estimate of how much oil is beneath

[111] Chevron, "Texaco Petroleum, Ecuador and the Lawsuit against Chevron," p.1, http://www.chevron.com/documents/pdf/texacopetroleumecuadorlawsuit.pdf, (accessed 3rd February 2011).

biocultural locations and the amount Peru would be required to ask from the international community to cover non-extraction. However, it is plain that such a move would no doubt help prevent further social unrest, and win praise from environmental campaigners, civil rights groups and the Indians themselves.

There are of course numerous challenges to such a government reversal, not least from the oil companies, who would view such a move as a direct attack on their interests. The wider international economy must also be mentioned. The banking crisis, the threat of 'double dip' recessions and austerity measures have hit many affluent countries hard, who may now be more unwilling to invest in projects such as Yasuni, or a Peruvian equivalent. Moreover, the world's insatiable appetite for oil, especially from emerging nations such as China and India, mean that the global thirst, and therefore the price, will remain high. Peru and Ecuador would be looking at the international community to match these prices with their green initiatives in order to safeguard their economic interests.

Nonetheless, the world is at the peak of the oil boom. Over the coming decades, petroleum companies will be forced to sensitive locations such as the Arctic in order to extract oil, but this precious commodity *will* run out. What then for the world economic engine that is kept running on oil? The answer perhaps lies within the ITT initiative. It highlights how the world economy must begin to look for alternative sources of green energy to power itself. It cannot destroy places of great environmental importance, and ignore the legitimate rights of local communities in order to delay the inevitable. The expansion of the ITT initiative into Peru would be a logical continuation of this safeguarding process, and would also add extra pressure to the international community to begin a radical rethink of how our world is powered. Peru, and other Amazonian nations such as Colombia or Brazil need not change their oil policy overnight, but instead a globalised scheme under the UN could be spearheaded, which would see the gradual introduction of

renewable energy sources across the world and the move away from oil. This would not only save the Amazonian Basin from the harmful effects of pollution and contamination, but at a local level, respect and maintain indigenous communities' lives, cultures and beliefs. The world still has time to overhaul its economic engine. The first step has begun in Ecuador. The next should be taken in Peru.

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